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1. A programmable display device comprising:
a main memory which stores the display data;
a data processing circuit which converts the data format
of said display data into the data format of the screen
display;

a number of line memories which store the display data
converted by said data processing circuit per unit of the
display line;

a display control section which controls the transfer
and storage of the display data from said main memory to/in
said line memory and the readout of the necessary display data
from said line memory to display it on the screen; and

a main control section which controls the storage of
said display data in said main memory, and the transfer of
the stored information including the data format and the
storage address to said display control section, wherein

said display control section reading out said display
data by specifying the address of the display data for one
line which has a possibility to be displayed on the screen
to said main memory from which the display data is transferred,
based on said stored information, causing said data
processing circuit to perform the data transfer and select
said line memory to store said display data.

2. A programmable display device according to claim

1, wherein said display control section controls the storage of the display data to be utilized repeatedly in said line memory, so that when the repeated display data is displayed, said repeated display data is read out from said line memory by specifying the address thereof and displayed on the screen.

3. A programmable display device according to claim 1, further comprising a data buffer memory for storing the display data to be utilized repeatedly, and when said data is displayed on the screen, said display control section causes said repeated display data to be read out from said data buffer memory and displayed on the screen.

4. A programmable display device according to claim 1, which includes:

a first buffer memory for storing the display data read out from said main memory;

a second buffer memory for storing the display data read out from said first buffer memory; and

an address counter for counting the readout address and the write address of said first and the second buffer memories; wherein

said display control section controlling the stop and motion of the readout address count and the write address count, respectively, with respect to said address counter, performing the processing of expansion, contraction and skip and storing the data in said line memory.

5. A programmable display device according to claim 4, wherein said display control section causes the stop and motion of the readout address count to be repeated in a predetermined order.

5 6. A programmable display device according to claim 1, wherein said data processing circuit has a plurality of conversion processing circuits for converting various data formats, and

10 said display control section selects said conversion processing circuits based on the data format information of said stored information.

15 7. A programmable display device according to claim 1, wherein said display control section is provided with a program memory and a data memory for storing the necessary programs and data.

8. A programmable display device according to claim 7, wherein said display control section causes the information necessary for said program memory and said data memory to be transferred from said main memory.

20 9. A programmable display device according to claim 1, wherein said display control section adds the line information showing in which line the data is to be used when storing the display data in said line memory, and controls the display of the data in such a manner that when reading
25 out the display data from said line memory, the line

information is read out simultaneously and the data is displayed only when the line which uses said display data is the same with the line information.

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